

REMARKS/ARGUMENTS

Applicants gratefully acknowledge the allowance of claims 26, 30-36, 38-45, 47 and 48.

Figures 3 and 5 of the drawings have been amended as requested by the Examiner and substitute drawings pages enclosed.

The title of the invention has been changed to “MAGNETICALLY ENHANCED RADIATION SOURCE” in accordance with the Examiner’s request to make the title more descriptive.

The specification has been amended on pages 13 and 14 as requested by the Examiner. Similarly, claims 32, 46 and 48 have been amended to address the informalities noted by the Examiner.

Claim 46 has been amended to include subject matter which was inadvertently omitted when original claim 21 was retyped as claim 46.

Claim 27 has been amended to make explicit that which was implicit in the claim as originally presented. More specifically, claim 27 has been amended to positively recite the irradiator and the magnetic field generator as part of the radiation source. It is implicit in the claim as filed that there is a need for generating the magnetic field and also that there is a source of irradiating radiation (the “irradiator”). In view of the foregoing it is respectfully submitted that since claim 27 merely makes explicit that which was implicit in the claim prior to the amendment, the amendment does not represent a change made for patentable purposes.

Reconsideration of the application in view of the foregoing amendments and the following remarks is respectfully requested.

Claim 27 stands rejected under 35 U.S.C. §102(b) as being clearly anticipated by Sarukura et al. (JOURNAL OF APPLIED PHYSICS, July 1998). Applicants respectfully traverse this rejection.

Claim 27 is directed to a radiation source which inter alia minimizes the screening effect of free carriers in the frequency conversion member.

In contrast, Sarukura et al. does not disclose a radiation source in which the screening effect of free carrier in the frequency conversion member is minimized by suitable configuration of the magnetic field and fluence of the input beam. Nor is there any suggestion in Sarukura to

provide a radiation source as claimed in claim 27. It is respectfully submitted, therefore, that not only is claim 27 not anticipated by Sarukura but it is not rendered obvious thereby.

Claims 28 and 29 stand rejected under 35 U.S.C. §102(b) as being clearly anticipated by U.S. Patent No. 4,943,145 to Miyata. Applicants respectfully traverse this rejection.

Claim 28 is directed to a radiation source comprising a frequency conversion member configured to emit a beam of emitted radiation in response to irradiation with an input beam with a frequency different than that of the emitted beam, the frequency conversion member comprising a magnetic material dopant

Miyata, however, does not disclose the use of magnetic dopants within the frequency conversion member. Although a reference to an electro-luminescent material such as ZnS doped with Mn is made on col. 1, line 21, this is in relation to prior art systems and there is no indication that the invention of Miyata can utilize such a material. Applicants therefore respectfully submit that claim 28 is novel over Miyata. Furthermore, there is no teaching in Miyata to suggest the use of such a material as a replacement for the materials disclosed for use as the film 22. Therefore Applicants respectfully submits that claim 28 is nonobvious over Miyata.

Claim 29 is dependent from claim 28 and, therefore, is patentable for the same reasons, as well as because of the combination of the features set forth in claim 29 with those set forth in claim 28.

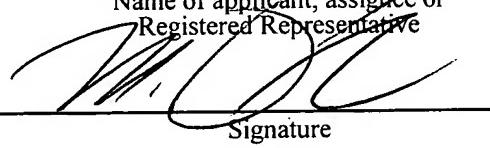
Claim 37 stands rejected under 35 U.S.C. §103(a) as being unpatentable over Sarukura et al. (JOURNAL OF APPLIED PHYSICS, July 1998). Applicants respectfully traverse this rejection.

Claim 37 requires that the source be subjected to a magnetic field that has a component that is parallel to that of the emitted beam of radiation. However, In Sarukura the magnetic field is actually at right angles to the emitted radiation (see Figure 1a which shows the magnetic field as vertical and the emitted radiation as horizontal). Sarukura does not therefore disclose the subject matter of claim 37 and, accordingly, Claim 37 is not anticipated by Sarukura. Further, Sarukura does not suggest the claimed geometric configuration and, accordingly, claim 37 is not rendered obvious by Sarukura et al.

In view of the foregoing, this application is now believed to be in condition for allowance,
which action is respectfully requested.

I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on September 14, 2004:

Martin Pfeffer

Name of applicant, assignee or
Registered Representative


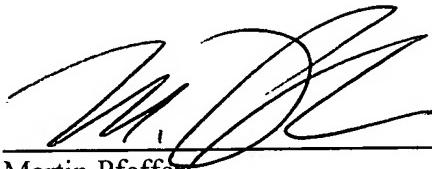
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September 14, 2004

Date of Signature

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Respectfully submitted,



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AMENDMENT TO THE DRAWING(S)

Fig(s). 3 and 5 have been amended. The attached sheets of formal drawings replaces the original sheets including Figs. 3(a), 3(b) and Figs. 5(a)-5(c).